

## REMARKS

Applicant has carefully reviewed and considered the Final Office Action mailed on February 1, 2006, and the references cited therewith.

Claims 1, 11, 25, 34, 40-41, and 43 are amended, claim 39 is canceled, and no claims are added; as a result, claims 1-38 and 40-52 are now pending in this application.

### § 102 Rejection of the Claims

With regard to all 102 rejections, the Examiner appears to take Official Notice by stating, "MOSFETs inherently comprise a parasitic diode coupled across therein. Hence the name parasitic or intrinsic or internal or body diode etc." Applicant respectfully requests citation of a document(s) supporting both sentences of such a statement or an affidavit of the Examiner's personal knowledge thereof. However, in the interest of advancing prosecution, Applicant has amended each independent claim as detailed hereinabove.

Claims 1-3, 5, 7, 9, 11, 18, 20, 22, 24, 25, 31-36, 41, 43, 44, 45, 47, 49, and 51 were rejected under 35 USC § 102(b) as being anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Herbert (U.S. Patent No. 6,115, 267). Applicant respectfully traverses the rejection as follows.

Herbert appears to describe an "AC-DC converter with no input rectifiers . . .", (see Title). However, from Applicant's review, the Herbert reference does not describe a converter having a two transistor totem-pole configuration wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

In contrast, Applicant's independent claim 1, as amended, recites:

said power converter including a charge pump capacitor, said charge pump capacitor coupled to a two transistor totem-pole configuration in said converter so as to drive a primary of an isolation transformer; and

wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Independent claim 11, as amended, recites:

at least two transistor totem-pole configurations...

wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor;

Independent claim 25, as amended, recites:

wherein the electrical storage element is coupled to a two transistor totem-pole configuration; and

wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Independent claim 34, as amended, recites:

said power converter including a charge pump capacitor, said charge pump capacitor coupled to a two transistor totem-pole configuration in said converter so as to drive a primary of an isolation transformer; and

wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

In addition, independent claim 43, as amended, recites:

wherein said means for converting includes being coupled to a two transistor totem-pole configuration; and

wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

As such, Applicant respectfully submits that each and every element of independent claims 1, 11, 25, 34, and 43, as amended, is not described, taught, or suggested in the Herbert reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection, or in the alternative, the 103 rejection of independent claims 1, 11, 25, 34, and 43, as amended, as well as those claims that depend therefrom.

Claims 1-3, 5, 7, 10-18, 20, 22, 24-36, 41-43, 47, 49, 51, and 52 were rejected under 35 USC § 102(b) as being anticipated by or, in the alternative, under 35 USC § 103(a) as obvious over Huang, et al. (U.S. Patent No. 6,344,979). Applicant respectfully traverses the rejection as follows.

Huang appears to describe an “LLC series resonant DC-to-DC converter”, (see Title). However, from Applicant’s review, the Huang reference does not describe a converter having a “two transistor totem-pole configuration(s)” “wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor”, as recited in independent claims 1, 11, 25, 34, and 43, as shown above.

As such, Applicant respectfully submits that each and every element of independent claims 1, 11, 25, 34, and 43, as amended, is not described, taught, or suggested in the Huang reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection, or in the alternative, the 103 rejection of independent claims 1, 11, 25, 34, and 43, as amended, as well as those claims that depend therefrom.

Claims 1-3, 5, 7, 10-18, 20, 22, 24-36, 41-43, 47, 49, 51, and 52 were rejected under 35 USC § 102(b) as being anticipated by Suzuki, et al. (U.S. Patent No. 6,236,192). Applicant respectfully traverses the rejection as follows.

Suzuki appears to describe an “AC voltage regulator”, (see Title). However, from Applicant’s review, the Suzuki reference does not describe a converter having a “two transistor totem-pole configuration(s)” “wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor”, as recited in independent claims 1, 11, 25, 34, and 43, as shown above.

As such, Applicant respectfully submits that each and every element of independent claims 1, 11, 25, 34, and 43, as amended, is not described, taught, or suggested in the Suzuki reference. Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 102 rejection, or in the alternative, the 103 rejection of independent claims 1, 11, 25, 34, and 43, as amended, as well as those claims that depend therefrom.

#### § 103 Rejection of the Claims

Claims 4, 6, 19, 21, 37, 38, 46, and 48 were rejected under 35 USC § 103(a) as being unpatentable over Herbert (U.S. Patent No. 6,115,267) in view of Walsh, et al. (U.S. Patent No. 5,892,983). Applicant respectfully traverses the rejection as follows.

Claims 4 and 6 depend from independent claim 1. Applicant respectfully submits that claim 1, as amended, is in condition for allowance. From Applicant’s review of the Walsh reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 1, as amended, of the present application, Walsh does not describe, teach, or suggest:

said power converter including a charge pump capacitor coupled to a two transistor totem-pole configuration in said converter so as to drive a primary of an isolation transformer; and  
wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Claims 19 and 21 depend from independent claim 11. Applicant respectfully submits that claim 11, as amended, is in condition for allowance. From Applicant's review of the Walsh reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 11, as amended, of the present application, Walsh does not describe, teach, or suggest, "a least two transistor totem-pole configurations . . . wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor".

Claims 37 and 38 depend from independent claim 34. Applicant respectfully submits that claim 34, as amended, is in condition for allowance. From Applicant's review of the Walsh reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 34, as amended, of the present application, Walsh does not describe, teach, or suggest:

said power converter including a charge pump capacitor, said charge pump capacitor coupled to a two transistor totem-pole configuration in said converter so as to drive a primary of an isolation transformer; and  
wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Claims 46 and 48 depend from independent claim 43. Applicant respectfully submits that claim 43, as amended, is in condition for allowance. From Applicant's review of the Walsh reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 43, as amended, of the present application, Walsh does not describe, teach, or suggest:

wherein said means for converting includes being coupled to a two transistor totem-pole configuration; and  
wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 4, 6, 19, 21, 37, 38, 46 and 48.

Claims 4, 6, 19, 21, 37, 38, 46, and 48 were rejected under 35 USC § 103(a) as being unpatentable over Huang, et al. (U.S. Patent No. 6,344,979) in view of Walsh, et al. (U.S. Patent No. 5,892,983). Applicant respectfully traverses the rejection as follows.

Claims 4 and 6 depend from independent claim 1, claims 19 and 21 depend from independent claim 11, claims 37 and 38 depend from independent claim 34, and claims 46 and 48 depend from independent claim 43. Applicant respectfully submits that claims 1, 11, 34, and 43, as amended, are in condition for allowance. From Applicant's review of the Walsh reference, the reference does not cure the deficiencies of the Huang reference. That is, Walsh does not describe, teach, or suggest a converter having a "two transistor totem-pole configuration(s)" "wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor", as recited in independent claims 1, 11, 34, and 43, as shown above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 4, 6, 19, 21, 37, 38, 46 and 48.

Claims 4, 6, 19, 21, 37, 38, 46, and 48 were rejected under 35 USC § 103(a) as being unpatentable over Suzuki, et al. (U.S. Patent No. 6,236,192) in view of Walsh, et al. (U.S. Patent No. 5,892,983). Applicant respectfully traverses the rejection as follows.

Claims 4 and 6 depend from independent claim 1, claims 19 and 21 depend from independent claim 11, claims 37 and 38 depend from independent claim 34, and claims 46 and 48 depend from independent claim 43. Applicant respectfully submits that claims 1, 11, 34, and 43, as amended, are in condition for allowance. From Applicant's review of the Walsh reference, the reference does not cure the deficiencies of the Huang reference. That is, Walsh does not describe, teach, or suggest a converter having a "two transistor totem-pole configuration(s)" "wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor", as recited in independent claims 1, 11, 34, and 43, as shown above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 4, 6, 19, 21, 37, 38, 46 and 48.

Claims 8, 23, 40 and 50 were rejected under 35 USC § 103(a) as being unpatentable over Herbert (U.S. Patent No. 6,115,267) in view of Balakrishnan (U.S. Patent No. 6,813,168). Applicant respectfully traverses the rejection as follows. Applicant respectfully traverses the rejection as follows.

Claim 8 depends from independent claim 1. Applicant respectfully submits that claim 1, as amended, is in condition for allowance. From Applicant's review of the Balakrishnan reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 1, as amended, of the present application, Balakrishnan does not describe, teach, or suggest:

said power converter including a charge pump capacitor coupled to a two transistor totem-pole configuration in said converter so as to drive a primary of an isolation transformer; and  
wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Claim 23 depends from independent claim 11. Applicant respectfully submits that claim 11, as amended, is in condition for allowance. From Applicant's review of the Balakrishnan reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 11, as amended, of the present application, Balakrishnan does not describe, teach, or suggest, "at least two transistor totem-pole configurations . . . wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor".

Claim 40 depends from independent claim 34. Applicant respectfully submits that claim 34, as amended, is in condition for allowance. From Applicant's review of the Balakrishnan reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 34, as amended, of the present application, Balakrishnan does not describe, teach, or suggest:

said power converter including a charge pump capacitor, said charge pump capacitor coupled to a two transistor totem-pole configuration in said converter so as to drive a primary of an isolation transformer; and

wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Claim 50 depends from independent claim 43. Applicant respectfully submits that claim 43, as amended, is in condition for allowance. From Applicant's review of the Balakrishnan reference, the reference does not cure the deficiencies of the Herbert reference. That is, as recited in independent claim 43, as amended, of the present application, Balakrishnan does not describe, teach, or suggest:

wherein said means for converting includes being coupled to a two transistor totem-pole configuration; and  
wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 8, 23, 40, and 50.

Claims 8, 23, 40 and 50 were rejected under 35 USC § 103(a) as being unpatentable over Huang, et al. (U.S. Patent No. 6,344,979) in view of Balakrishnan (U.S. Patent No. 6,813,168). Applicant respectfully traverses the rejection as follows. Applicant respectfully traverses the rejection as follows.

Claim 8 depends from independent claim 1, claim 23 depends from independent claim 11, claim 40 depends from independent claim 34, and claim 50 depends from independent claim 43. Applicant respectfully submits that claims 1, 11, 34, and 43, as amended, are in condition for allowance. From Applicant's review of the Balakrishnan reference, the reference does not cure the deficiencies of the Huang reference. That is, Balakrishnan does not describe, teach, or suggest a converter having a "two transistor totem-pole configuration(s)" "wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor", as recited in independent claims 1, 11, 34, and 43, as shown above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 8, 23, 40, and 50.

Claims 8, 23, 40 and 50 were rejected under 35 USC § 103(a) as being unpatentable over Suzuki, et al. (U.S. Patent No. 6,236,192) in view of Balakrishnan (U.S. Patent No. 6,813,168). Applicant respectfully traverses the rejection as follows.

Claim 8 depends from independent claim 1, claim 23 depends from independent claim 11, claim 40 depends from independent claim 34, and claim 50 depends from independent claim 43. Applicant respectfully submits that claims 1, 11, 34, and 43, as amended, are in condition for allowance. From Applicant's review of the Balakrishnan reference, the reference does not cure the deficiencies of the Suzuki reference. That is, Balakrishnan does not describe, teach, or suggest a converter having a "two transistor totem-pole configuration(s)" "wherein a parasitic diode in one transistor opposes a parasitic diode in the other transistor", as recited in independent claims 1, 11, 34, and 43, as shown above.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the 103 rejection of dependent claims 8, 23, 40, and 50.




**CONCLUSION**

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney Gregg W. Wisdom at (360) 212-8052.

At any time during the pendency of this application, please charge any additional fees or credit overpayment to the Deposit Account No. 08-2025.

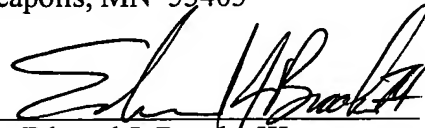
**CERTIFICATE UNDER 37 CFR §1.8:** The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS AF Commissioner for Patents, P.O. BOX 1450 Alexandria, VA 22313-1450, on this 8<sup>th</sup> day of March, 2006.

Alison L. Subendam  
Name

  
Signature

Respectfully Submitted,  
B. Mark Hirst

By his Representatives,  
BROOKS & CAMERON, PLLC  
1221 Nicollet Avenue, Suite 500  
Minneapolis, MN 55403

By:   
Edward J. Brooks III  
Reg. No. 40,925

Date: 3/8/2006